No. of Printed Pages : 5 **BCS–011/BCS–111**

BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA)

Term-End Examination

June, 2025

BCS-011/BCS-111 : COMPUTER BASICS AND PC SOFTWARE

Time : 3 Hours *Maximum Marks : 100*

Weightage : 75%

Note : *Question No.* ***1*** *is compulsory and carries 40 marks. Attempt any* ***three*** *questions from the rest.*

1. (a) Do the following conversions : 10

   (i) (124.5) Decimal to Binary

   (ii) (110101101010) Binary to Hexadecimal

(iii) (CBA) Hexadecimal to Binary

(iv) (574) Octal to Decimal

(v) (10101) Binary to Decimal

(b) Explain the various types of computers on the basis of the technology used. 4

(c) Explain the purpose of memory of the computer. Explain its need and types. 6

(d) Explain the working of the following EXCEL functions : 7

COUNTIF, LEFT, HLOOKUP, MATCH, CONCATENATE, NOW, SUM

(e) Why do computer systems need anti-virus softwares ? Which techniques do anti-virus programs use to identify viruses ? 6

(f) What are IP addresses ? Explain the structure of IP address with suitable block diagram. Also, explain the term DNS and its utility. 7

2. (a) Explain software project management and the various project management activities. 8

   (b) Draw a flowchart that takes '*n*' numbers and produces the smallest of those numbers as output. 6

   (c) How does data get transmitted via guided and unguided media ? Explain *two* modes from each category. 6

3. (a) What are optical memories and how are they more useful ? Explain briefly any *four* types of optical disks. 8

   (b) What is cloud computing ? Explain the various cloud services and how they benefit organizations ? Describe the key features and benefits of cloud based solutions. 6

(c) What is collaboration in the context of Web Applications ? What is Wiki ? Explain its various characteristics and the activities for which it is used. 6

4. (a) Explain Internet Protocol addressing with the help of an example. 4

(b) What are utility softwares ? Explain briefly the following utility softwares : 10

(i) Disk Defragmenter

(ii) CHKDSK

(iii) Data Compression

(iv) Disk Management

(c) What are Malwares ? Explain any *three* Malwares, in brief, with the help of an example of each. 6

5. (a) What are Operating Systems ? What kind of services do operating systems provide to users and programs ? 6

(b) "CPU is a complex IC chip having millions of transistors." Describe the structure of the CPU and explain its components with the help of a diagram. 8

(c) What is Mail Merge ? Explain the various steps of mail merge with the help of an example. 6

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